

ABSTRACT OF THE DISCLOSURE

A liquid product vaporizing apparatus for an air deodorizing system includes an air inlet port for drawing a stream of air into the system and directing the stream of air into a vaporization chamber. An atomizing nozzle sprays a mist of liquid deodorant from a liquid reservoir into the vaporization chamber as the stream of air flows through the vaporization chamber. Much of the atomized liquid deodorant vaporizes within the vaporization chamber. The vaporized particles of liquid deodorant mix with the stream of air flowing through the vaporization chamber to form a stream of treated air. Other particles of liquid deodorant condense and coalesce on the sidewall of the vaporization chamber and are drawn by gravity toward the liquid product reservoir so they may be re-sprayed from the atomizing nozzle. The treated air exits the vaporization chamber and is directed through distribution pipes to a plurality of vapor distribution ports. The treated air flows out of the vapor distribution ports and mixes with a malodor produced from industrial or other activity, such as a waste-water treatment plant. Mixing of the treated air with the malodor effectively neutralizes the malodor and makes the malodorous activity more tolerable to human life.

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